

other side; the branch passes through the trunk a little to one side of its center, bridging the space between the two trees. The branch extended several feet beyond the pierced trunk but ultimately died. Two photographs were taken just after the pruning of the tree had been accomplished and in the one reproduced on page 115 the ladder used in the operation is seen still resting against the bole of the tree. The butt is four inches in diameter and appears to be emerging from both the bole and its branch. The probable explanation of this condition is that when both trees were young, a branch of one crossed a branch of the other, resting firmly in the axil or crotch formed by the bole and its branch; the friction caused by the natural growth of the parts involved, assisted by winds and storms, probably wore away the barks until the cambium layers were reached, when a union of these tissues took place resulting ultimately in completely covering the intruding branch with wood and bark of the other tree, bringing about the present appearance which might be likened unto that of "Siamese Twins." This process resulted in the gradual strangulation, cessation of growth, and death of that part of the branch beyond the tree; the other part or "bridge" continued its growth and its union with the tree is so perfect that its bark is as normally continuous with that of the pierced trunk as with that of the parent tree.

DEPARTMENT OF BOTANY,
 PARKE, DAVIS AND COMPANY,
 DETROIT, MICH.

AN UNPUBLISHED LETTER BY GRONOVIVS

BY HELEN A. CHOATE

This letter from Gronovius to John Bartram, the original of which was recently acquired and is now in the historical collection of the botanical library of Smith College, seems never to have been published. Both because of the light it throws on the current botanical life of that time, and as showing something of the relations then existing between scientific men of Europe and

those in this New World, the letter seems of sufficient interest for publication.

The words or phrases indicated in the printed copy in [] represent insertions by some one other than Gronovius, and I am informed by Mr. John W. Jordan, librarian of the Historical Society of Pennsylvania, that the handwriting of these insertions is probably Peter Collinson's.

Four other letters from Gronovius to Bartram, the originals of which are now in the possession of the Historical Society of Pennsylvania, have been published in the Memorials of Bartram and Marshall (edited by Darlington, Philadelphia, 1849).

“MR. BARTRAM

(1)

“*Dear Friend*

“It was in Decemb. laste year, that I hath the favour to get a letter from Mr. Collinson, whereby he acquaint me, that he was sending to me your journal. The frost and snow hindered that ships upon the Mase-river could not reach [come] up to Rotterdam, but were obliged for the Ice to stay two months betwixt the Sea and Rotterdam, which was very tedious for me. But at last I got that journal, written by your own hands, reading it over and over very judiciously, and I don't give it any farther encomium, but refer myself to the preface of your printed journal at London, which I got yesterday from Mr. Collinson, by the care of Mr. Slatter from pensilvania, by whom also I got the favour of your letter dated the 30 of Novemb. 1750. The last war hath spoiled our correspondence for some years, which I hope will now revive. I was forced to make a new edition of my Index, in which I made mention of you in a decent way. That time I hath a prospect to get again some of the goods [curiosities] you sent to me, and Mr. Collinson, by a ship (if I remember well The Queen of Hungary) (2) which was taken by the French or Spanyards, being somme of the things sold at Diepe in France: being all come in the hands of Mr. Jussieu at Paris: but all what I could get bak, were only some seeds. Else I hath [had] a mind to print after my Index a treatise with the Title of Bartramia,

that is your journal in Latin, with notes to it containing the places where you hath found so many curious pieces [articles], which really are an ornament to my Supellea, particular your great River shells. I got also your letter of the 24 of January 1750, with the fine drawing of the gape at the blew mountains, which indeed is very curious. It is now the 26[th] of June, when Dr. Thomson acquaint me of his going to London. So I take this opportunity to send to you a copy of my Index, and also a copy of the Bibliotheca Botanica of Linneus, lately printed at Amsterdam, much enlarged and in better order, than the first edition. It is pity we had not, before this Bibliotheca was printed, your journey [al], else you would have hath a place in it at the 163 page, under this title

“PENSILVANIA

“BARTRAM Johannes

“Observationes in itinere ex pensilvania in canadam

Lond. 1751. oct. pag. 79 tab. 1. fig. 2

“You have really obliged the world with such curious observations, as you have [made in] most every page. What hath been a great work about 50 years ago (3) to find out the place where the Ninzi [Ginseng] is growing, which you have discovered so easily. It was to be wished that all Travelers hath been so curious about the nature of the ground, as you have showed.

“Linneus has printed his Philosophia Botanica, which I expect with the first ship from Sweden. He wrote to me that they have sent a Learned Botanist to China, and another to the Holy Land, to discover plants. So that in few years the garden at Upsal will be the finest of all. [if they had more sun and a milder climate.]

“I sent at this occasion to you few specimens of dryed fishes, to be kept as plants in an Herbarius; the great misfortune is, that the colour perish; else it shows a good way to find out their characters 1. by number of the bones in the membrana branchiostega, which you see in flying Trigla marked with blak; 2. by the number and position of the Fins, and the bones in them. 3. by the Course of the linea lateralis running in each fish from the bak part of the head to the tail. *Hebenskeit* a professor at

Leipsich hath invented this methode, but he never would communicate the way to prepare them so; till at last I found it out a few years ago, and communicate it to our good friend Mr. Collinson, by whose care it is printed in the philos. Transact. num. 463. I send also to you a bit of what Tournefort calls *Fucus manum referens*, and which is exceeding wel represented. [Docr] Boerhave taketh it for a fucus. this body is frequent at our sea coast, having at first a great reference to the Spongia, being full of water, but this once being pressed out, it never soaks (4) water again, but then it appears that it is a congeries of pipes, wherein breeds the polypi, but four times larger than the sweet water polypi of Mr. Trembly, and so plentiful that I believe in this little bit were more than a million of these creatures, which being cut in four or five pieces, do live, grow and become soon the same posture [shape], as the first was.

“Now I give you the witch names of the shells you was pleased to send to me.

“1. Large fresh water muscle breeding in the creeks in the hilly part of the countrey. Concha testa oblonga, media antice contracta. Linn. faun. 1331.

“34. Antiqua. this creature is the Heremite [Crab] Cancer macrourus cauda molli testa cochlea inclusa; chela dextra minore. We have such a creature to at our sea coast, but differs that the chela dextra is much larger.

“35. Under this nummer you sent to me 3 sorts of shells

“a. cochlea oblonga fluviatilis. petiv. gazoph. t. 18 f. 8

“b. cochlea trium orbrum. List. conch. t. 140 f. 16

“c. concha testa subglobosa glabra, carnei coloris, sulco transversale. Linn. faun. 1336.

“39. Sea clam. chama fusca lata planor. List. conch. t. 423 f. 259

“40. Bay clam. pectunculus margine dense crenato, velut ex viola purpurascens ib. t. 271. f. 117

“41. Oyster. Ostrea virginiana List. conch. t. 200 n. 35

“2. Sea blak smal muscle. concha testa oblonga laevi subviolacea. Linn. faun. 1333.

“6. Shining Sea snails

“a. Buccinum brevirostrum clavicula brevior, labio interno insigniter repando, ore atro purpureo splendente

"b. —brevirostrum striatum & cancellatum, labro interno repando et splendente, mucrone costato, atro purpureum.

(5) "There is good prospect for the affairs of *Mr Slauter*, being very happy for him, that I hath the occasion to gain the favour of the Deputys of the Synode for him.

Now Dear Sir wishing you and your family all health and prosperity I remain

Your most obliged Servant

Joh. Frd. Gronovius

Leyden June 26. 1751.

"[as all the Goods etc. was ship'd on board I don't know whether I can send the Roots etc. by this ship.]"

REVIEWS.

Kraemer's Scientific and Applied Pharmacognosy *

"Scientific and Applied Pharmacognosy" is the title of a recent book by Professor Henry Kraemer, of the Philadelphia College of Pharmacy. This volume might well have been given the title "Systematic Plant Morphology," for between its covers we find arranged according to "Die Natürlichen Pflanzenfamilien" of Engler and Prantl all of the more important groups of plant families with a summary of the principal outer and inner morphological characteristics of each. Morphological and anatomical descriptions of some four hundred specific food or drug products are given under the proper plant families. These products represent practically all of the plant families, and hence the work at once becomes a valuable one on the comparative anatomy of plants. This should make the book helpful to systematists as well as morphologists. Furthermore it will prove very helpful to botanists who are looking for material to aid them in their teaching.

* Kraemer, H. Scientific and applied Pharmacognosy, pp. 1-850. [Illust.]. No. 145 No. 10th Street, Philadelphia, Pa. Price \$5.00.